ORDER NO. ARD-7607065C

Service Manual

Cassette Tape Deck

RS-630USD

Front Loading High Fidelity Cassette Deck
with Large Peak Check Meters

RS-630U MECHANISM SERIES

Specifications (Catalog specifications for sales)

Power requirements:	AC; 220 V, 50 Hz Power consumption; 10 W
Motor:	1-electronic speed control motor
Track system:	4-track, 2-channel recording and playback
Tape speed:	4.8 cm/s
Wow and flutter:	0.09 (WRMS), ±0.20% (DIN)
Frequency response:	CrO_2 tape; 20 ~ 16,000 Hz 30 ~ 14,000 Hz (DIN) Normal tape; 20 ~ 14,000 Hz 30 ~ 13,000 Hz (DIN)
Signal-to-noise ratio:	Dolby NR in; 60 dB (above 5 kHz) Dolby NR out; 50 dB (signal level = 250 nWb/m)
Fast forward and rewind time:	Approx. 90 seconds with C-60 cassette tape
Input:	MIC; sensitivity 0.25 mV/applicable microphone impedance 600Ω ~ 20 KΩ LINE; sensitivity 60 mV/input impedance 47 KΩ
Output:	LINE; output level 0.42 V/load impedance 50 KΩ over HEADPHONE; output level 60 mV/8Ω
REC/PB connection:	5P DIN type
Head:	1-HPF head for record/playback 1-ferrite head for erasing
Dimensions:	41.0 cm(W) × 14.2 cm(H) × 32.1 cm(D)
Weight:	7 kg

Specifications are subject to change without notice.

Technics

Matsushita Electric Trading Co., Ltd.
P.O. Box 288, Central Osaka Japan

LOCATION OF CONTROLS AND COMPONENTS

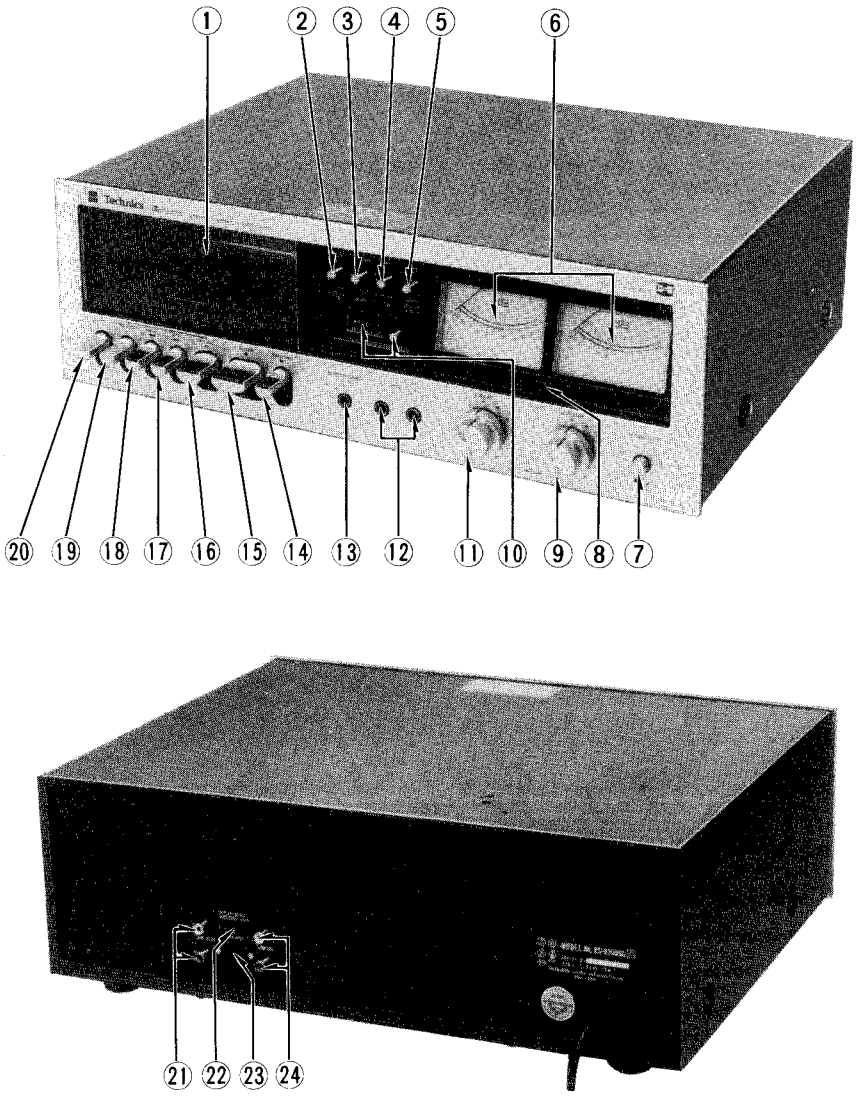


Fig. 1

① Cassette compartment door
② Dolby noise-reduction switch
③ Bias selector
④ Equalization selector
⑤ Peak-signal-check switch
⑥ Peak level/VU meters
⑦ Power switch
⑧ Recording indication lamp
⑨ Output level control
⑩ Tape counter and reset button
⑪ Input level controls
⑫ Microphone jacks
⑬ Headphones jack
⑭ Pause button
⑮ Stop button
⑯ Playback button
⑰ Fast forward button
⑱ Rewind button
⑲ Record button
⑳ Eject button
㉑ Line output jacks
㉒ Input selector
㉓ Record/playback
㉔ Line input jacks

※ Dolby is the trade mark of Dolby Laboratories Inc.

DISASSEMBLY INSTRUCTIONS

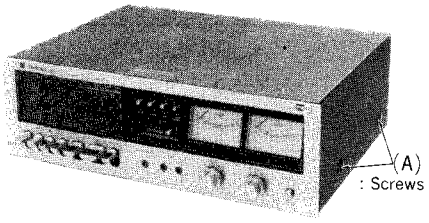


Fig. 2

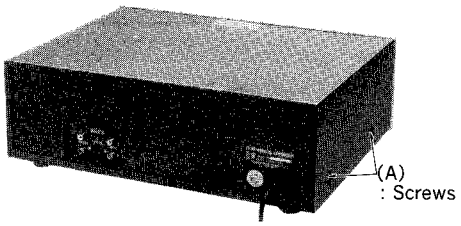


Fig. 3

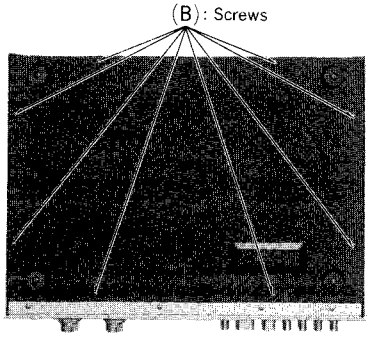


Fig. 4

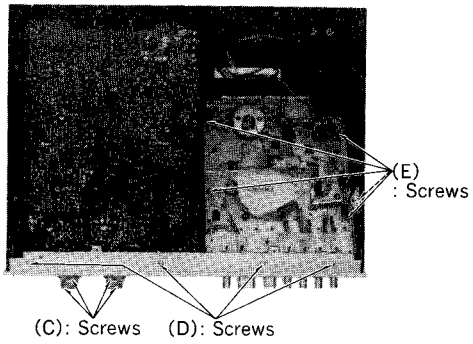


Fig. 5

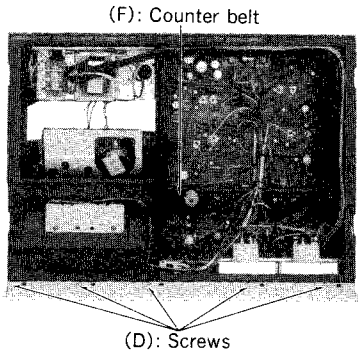


Fig. 6

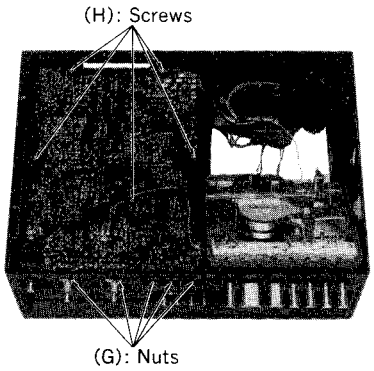


Fig. 7

Procedure	To remove —.	Remove —.	Pcs.	Shown in fig. —.
1	Case cover	(A)	4	2, 3
1	Bottom cover	(B)	8	4
3	Front panel	(C), (D)	4, 9	5, 6
4	Mechanism	(E), (F)	5, 1	5, 6
4	Main circuit board	(G), (H)	5, 5	7

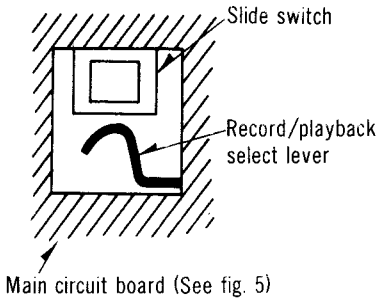


Fig. 8

※ When the main circuit board is installed, be sure that the slide switch and the record/playback select lever are placed in proper position. (See fig. 8)

ADJUSTMENTS

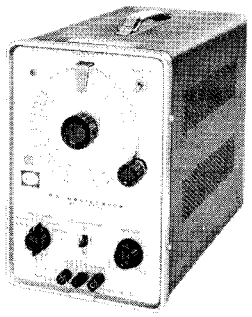
Before measuring and adjusting "Overall frequency response", "Overall distortion" and "Overall S/N ratio", confirm that the characteristics of 5 items below are within standard which have much relation to or influence on electrical performances above.

1. Head azimuth adjustment. 2. Bias current. 3. Playback gain. 4. Overall gain.
5. Playback frequency response.

I. TEST INSTRUMENTS

1. Prepare test instruments which are equivalent in accuracy to those shown below.
2. The test instruments should be inspected and corrected by specialists once every 6 months, because a long period of use without maintenance may increase errors in indication.
3. Warm-up the test instruments for 30 minutes and the set to be measured for 10 minutes before taking the measurements. If not, there may arise an error or difference between the initial value and the stabilized value measured after "aging".
4. Specifications of test instruments.

(1) Audio frequency oscillator



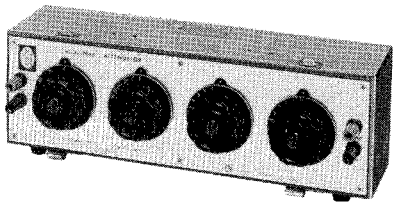
a. Oscillation frequency:	5 Hz ~ 500 kHz (5 ranges)
b. Frequency tolerance:	±(3% + 1 Hz)
c. Sine wave	
* Output voltage:	5 Vrms ±10% (without load)
(at 25°C)	2.5 Vrms ±10% (with 600Ω load)
* Output frequency response:	Within ±0.2 dB, 20 Hz ~ 20 kHz
	Within ±0.5 dB, 5 Hz ~ 500 kHz
* Distortion factor:	Not more than 0.05%, 200 Hz ~ 20 kHz
	Not more than 0.5%, 5 Hz ~ 500 kHz
* Output impedance:	600Ω unbalanced, within ±15%
* Output attenuator:	0, 20 dB, Error: within ±0.2 dB
d. Temperature in use of set:	Temperature = 0 ~ 40°C, Humidity = 90% or less

(2) Automatic-stop distortion meter (with vacuum tube voltmeter)

A. Distortion factor measurement	
a. Frequency: (fundamental wave)	400 Hz, 1 kHz ±10%
b. Measurement:	0.1 ~ 100% (6 ranges)
c. Input:	50 mV ~ 50 V
d. Fundamental wave attenuation:	60 dB or more
B. Level measurement	
a. Measurement:	1 mV (−60 dB) ~ 30 V (30 dB) (9 ranges)
b. Frequency response: (1 kHz basis)	20 Hz ~ 100 kHz ±0.3 dB
c. Input impedance:	1 MΩ ±10%, less than 50 pF
d. Error in indicated value:	Within ±3% at 1 kHz
C. Output terminal	
a. Frequency response:	10 Hz ~ 100 kHz ±1 dB
	100 kHz ~ 1 MHz ±3 dB
b. Output voltage:	1 Vrms ±10% (1 kHz sine wave)

(3) Attenuator

a. Input impedance: 600Ω unbalanced
b. Maximum attenuation: 121 dB
c. Minimum attenuation: 0.1 dB



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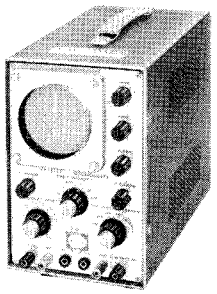
(4) Oscilloscope

a. Cathode ray tube: Effective ranges 8×8 cm
b. Vertical axis
   * Input sensitivity: 30 mV～30 V/cm
   * Frequency band: DC～2 MHz
   * Transient time: 180 ns.
   * Input impedance: 1 MΩ, 35 pF
c. Horizontal axis
   * Tuning range: 30 Hz～2 MHz
   * Sweep time: 1μs～100 ms/cm
   * External sweep: 1 Vp-p/cm or more



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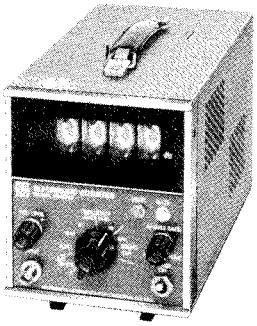
(5) Digital electronic counter

a. Number of figure: 4 (decimal system)
b. Input sensitivity: 100 mVrms
c. Input impedance: 1 MΩ, 40 pF
d. Frequency measurement range: 10 Hz～100 kHz
e. Counting time: 0.1, 1, 10 s



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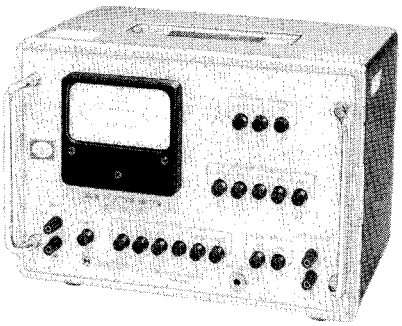
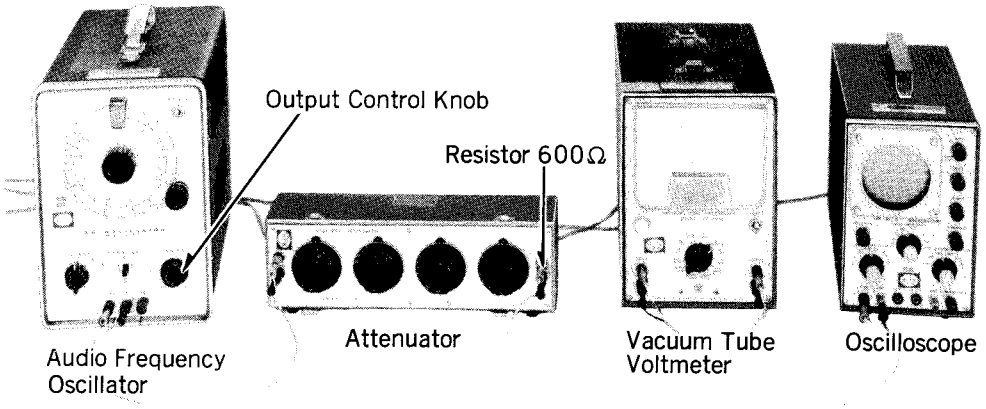
(6) Wow meter

a. Measured center frequency range: 3 kHz ±4%
b. Input level range: 30 mV～3 V
c. Input impedance: About 50 KΩ unbalanced
d. Measurement: 0.01～3% (5 ranges)
e. Indicator error: Maximum error in indicated value ±5% in each range.
f. Frequency response: Conforming to weighting curve characteristics (WRMS), JIS C5551.
   Flat characteristics (RMS)
   0.5～200 Hz, within −3 dB (4 Hz basis)
g. Meter indication system: Effective value indication, conforming to JIS C5551.
h. Meter response characteristic: About 5～7 sec.
i. Oscillation frequency: 3 frequencies (3 kHz, 3 kHz ±3%)
j. Temperature range: 0～40°C



II. MEASUREMENT CONDITIONS

1. Standard measurement conditions
   * Ambient temperature: 10～30°C (50～86°F)
   * Ambient humidity: 30～90% RH
   * Power voltage accuracy: ±3%
2. Position of tape recorder
   * When measuring, place the unit under test in a horizontal position.
3. Oscillator output voltage adjustment
   * Connect the equipments as shown in the following and adjust the oscillator output control knob for 1 V (f = 1 kHz) through the attenuator while keeping the attenuator at 0 dB.
   * When supplying a signal to the tape recorder amplifier, adjust the input level using the attenuator.



III. TEST TAPE

Test tape life

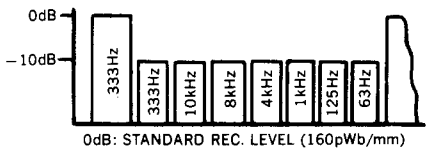
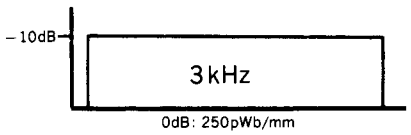
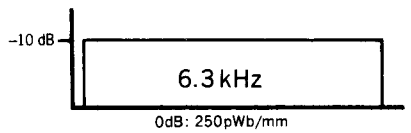
The more frequently the test tape is used, the more the tape characteristics will deteriorate (e.g. lowering of recorded level, worsening of frequency response particularly in high-frequency range, and an increase in wow due to tape elongation) until measured values become unreliable. Even in such a case when a tape is not used, but stored, for a long period of time, tape shows deterioration in performance because of self damagenetization due to storage conditions, etc.

Please refer to the tape life specification and use care not to use a tape longer than its rated life when servicing.

Frequence of use: Not more than 20 times for each tape length.

Storage period: Not more than 6 months.

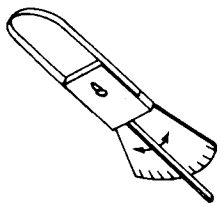
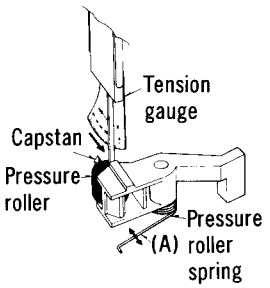
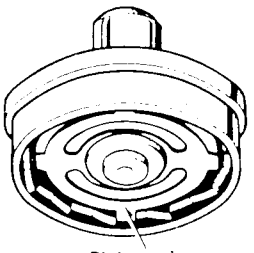
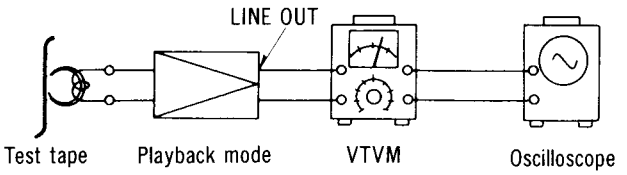
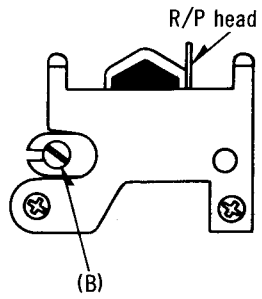
※ Test tape

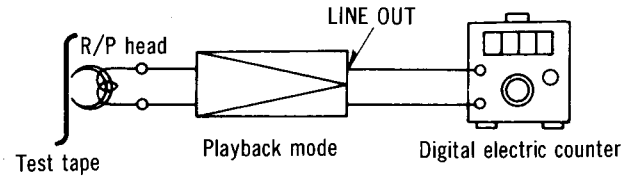
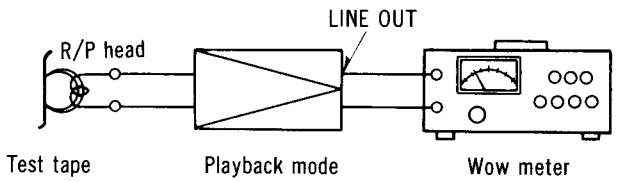
PARTS NO.	PARTS NAME	SPECIFICATIONS	REMARKS
C-FH	STANDARD REC. LEVEL & FREQ. RESPONSE TAPE		5 TIMES REPETITIVE RECORDING TAPE SPEED: 1-7/8 IPS. (4.8 CM/S), FULL TRACK (10 MIN.)
C-WAT	WOW & TAPE SPEED TAPE		TAPE SPEED: 1-7/8 IPS. (4.8 CM/S), FULL TRACK (45 MIN.)
C-AA	AZIMUTH TAPE		TAPE SPEED: 1-7/8 IPS. (4.8 CM/S), FULL TRACK (15 MIN.)
C-RA	REFERENCE BLANK TAPE (NORMAL)		UNRECORDED TAPE (20 MIN.)
C-RF	REFERENCE BLANK TAPE (CrO_2)		UNRECORDED TAPE (20 MIN.)

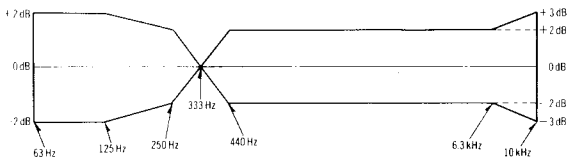
IV. MEASUREMENT & ADJUSTMENT METHOD

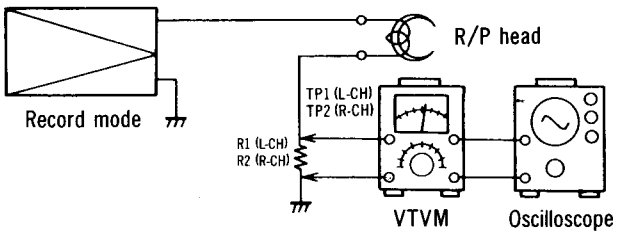
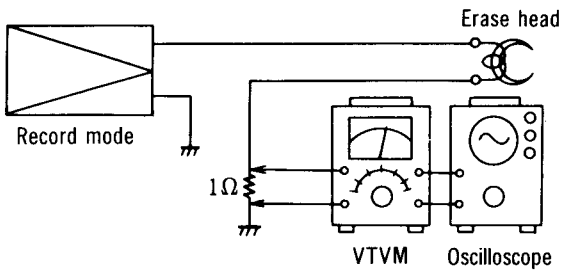
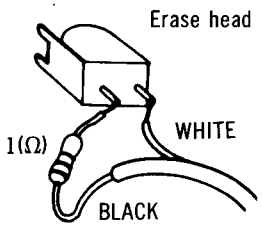
NOTE:

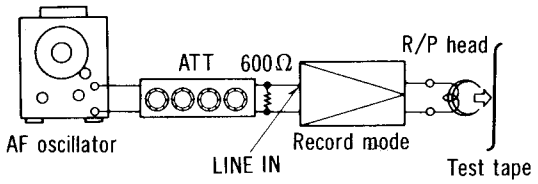
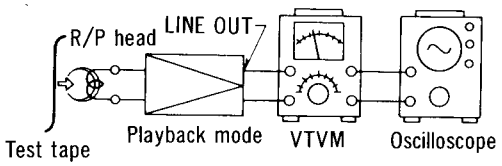
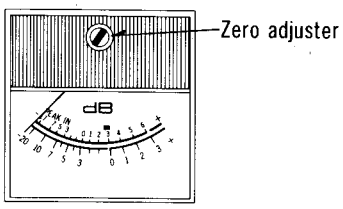
1. Make sure heads are clean.
2. Make sure capstan and pressure roller are clean.
3. Judgeable room temperature: 20±5°C (68±9°F)
4. Dolby NR switch: OUT
5. Bias selector: LOW
6. Equalizer selector: 120μS
7. Peak check switch: OUT
8. Output level control: MAX.

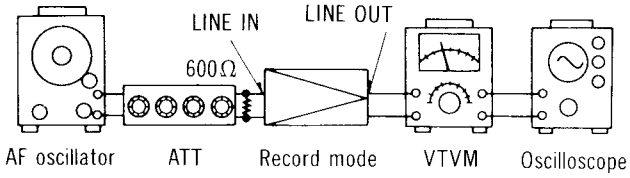
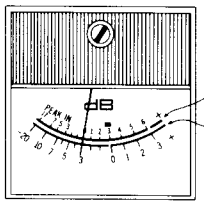
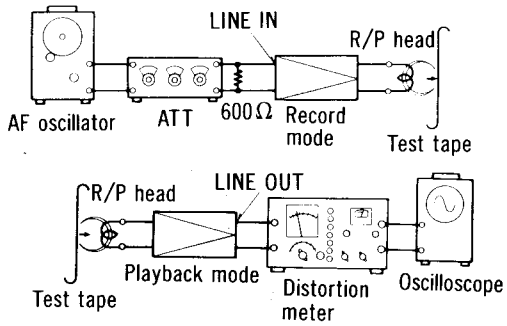
ITEM	MEASUREMENT & ADJUSTMENT	REMARKS
Pressure of pressure roller Equipment: * Tension gauge (max. 500 gr) 	1. Place UNIT into playback mode. 2. Hook the tension gauge to pressure roller lever and pull it in the direction of the arrow as shown in fig. 9. 3. Measure the tension at the moment when the pressure roller moves away from the capstan. **Standard Value: 400±50 gr** **Adjustment method** Bend the part (A) of the pressure roller spring in either direction shown by the arrow until the correct pressure is attained.	* Playback mode  **Fig. 9**
Takeup tension Equipment: * Cassette torque meter (SRK-CT or RP8063)	1. Mount cassette torque meter on UNIT. 2. Place UNIT into playback mode and read takeup torque. 3. Measure several times and determine the mean value. **Standard Value: 55±15 gr-cm** If the measured value is not within standard, firstly clean the rotational parts of the mechanism with alcohol, and if it still is not within standard, make the following adjustment. **Adjustment method** Adjust by turning the plate spring attached in the takeup reel table (See fig. 10).	* Playback mode  **Fig. 10**
Head azimuth adjustment Equipment: * VTVM * Oscilloscope * Test tape (azimuth)···C-AA	**Record/playback head adjustment** 1. Test equipment connection is shown below.  **Fig. 11** 2. Play azimuth tape (C-AA 6.3 kHz). 3. Adjust record/playback head angle adjustment screw (B) in fig. 12 so that output level at LINE OUT becomes maximum. 4. Measure both channels, and adjust levels for equal output. 5. After adjustment lock head adjustment screw with lacquer.	* Playback mode  **Fig. 12**

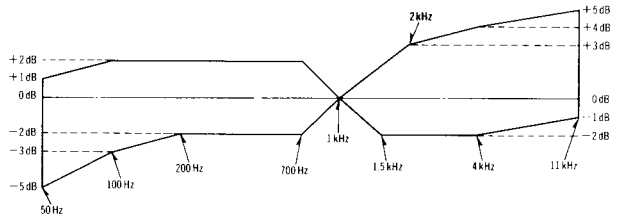
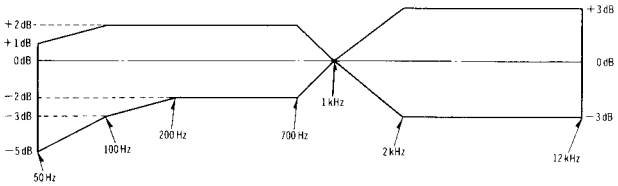
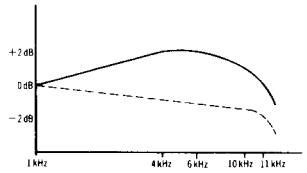
ITEM	MEASUREMENT & ADJUSTMENT	REMARKS
Tape speed Equipment: * Digital electronic counter or frequency counter (RP8067) * Test tape···C-WAT	**Tape speed accuracy** 1. Test equipment connection is shown below.  **Fig. 13** 2. Play test tape (C-WAT 3,000 Hz), and supply playback signal to frequency counter. 3. Measure this frequency. 4. On the basis of 3,000 Hz, determine value by following formula: $\text{Tape speed accuracy} = \left\{\frac{f-3{,}000}{3{,}000} \times 100\right\}\%$ where, f = measured value 5. Take measurement at middle section of tape. **Standard Value: ±1.5%** **Adjustment method** 1. Play the test tape (middle). 2. Adjust the tape speed adjustment VR shown in fig. 28 so that frequency becomes 3,000 Hz. **Tape speed fluctuation** Make measurements in same manner as above (beginning, middle and end of tape), and determine difference between maximum and minimum values and calculate as follows: $\text{Tape speed fluctuation} = \left\{\frac{f_1-f_2}{3{,}000} \times 100\right\}\%$ f_1 = maximum value f_2 = minimum value **Standard Value: 1%**	* Playback mode
Wow and flutter Equipment: * Wow meter * Test tape···C-WAT	1. Test equipment connection is shown below.  **Fig. 14** 2. Use wow test tape (3,000 Hz) and measure the playback signal on wow meter. 3. Wow and flutter is expressed in percentage and that measurement can be weighted by JIS network (WRMS). 4. Measure at middle section of test tape. **Standard Value: 0.12% (WRMS)**	* Playback mode

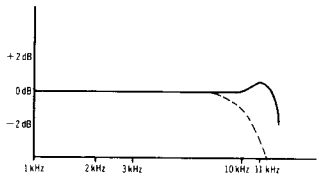
ITEM	MEASUREMENT & ADJUSTMENT	REMARKS
Playback frequency response Equipment: * VTVM * Oscilloscope * Test tape···C-FH	1. Test equipment connection is as same as "Head azimuth adjustment" but use the test tape (C-FH) instead of head azimuth tape (See fig. 11). 2. Place UNIT into playback mode. 3. Play frequency response test tape (C-FH). 4. Measure output level at 10kHz, 8kHz, 4kHz, 1kHz, 125Hz and 63Hz and compare each output level with standard frequency 333Hz, at LINE OUT. 5. Make measurement for both channels. 6. Make sure that the measured value is within the range specified in the frequency response chart. **Playback frequency response chart**  **Fig. 15** 7. If measured value is not in standard, adjust VR1 (L-CH), VR2 (R-CH) (See fig. 28 on page 14).	* Playback mode
Playback gain Equipment: * VTVM * Oscilloscope * Test tape···C-FH	1. Test equipment connection is shown in fig. 11. 2. Play standard recording level portion on test tape (C-FH 333Hz), and using VTVM measure the output level at LINE OUT jack. 3. Make measurement for both channels. **Standard Value: 0.42V (−7dB)** **Adjustment** 1. If measured value is not standard, adjust VR3 (L-CH), VR4 (R-CH) (See fig. 28 on page 14). 2. After adjustment, check "Playback frequency response" again.	* Playback mode
Playback S/N ratio Equipment: * VTVM * Oscilloscope * Test tape···C-FH * Empty cassette	1. Test equipment connection is shown in fig. 11. 2. Play standard recording level test tape (C-FH 333Hz) and read output level on VTVM. Refer to "Playback gain adjustment". 3. Place empty cassette (which has been cut) and play again. 4. Measure noise level at this time using VTVM, and determine ratio of this level to test tape output signal voltage (333Hz). **Standard Value: Greater than 43dB** An example calculation is shown below. A: Es = playback output signal voltage of test tape (333Hz) B: En = playback output noise level Es = 0.42V (−7dB) En = 3.0mV (−50dB) $S/N\ ratio = \frac{Es}{En} = \frac{0.42V}{3.0mV} = 140$ $20 \log_{10} 140 = 43dB$ S/N ratio = Es(dB) − En(dB) = −7 − (−50) = 43dB	* Playback mode

ITEM	MEASUREMENT & ADJUSTMENT	REMARKS
Bias current Equipment: * VTVM * Oscilloscope	1. Test equipment connection is shown below.  **Fig. 16** 2. Place UNIT into record mode, and tape selector to "NORMAL" (for normal tape). 3. Read voltage on VTVM and calculate bias current by following formula: $\text{Bias current (A)} = \frac{\text{Value read on VTVM (V)}}{10\,(\Omega)}$ **Standard Value: 0.17±0.15mA** 4. Adjust L5 (L-CH), and L6 (R-CH) (See adjustment part location on page 14). 5. Then changing the equalizer selector to 70μS and bias selector to HIGH (for CrO_2 tape), confirn that bias current become greater by 25% than that for normal.	* Record mode * Be sure the ground end of the meter is connected to the ground end of the resistor. * When bias current is adjusted on one channel only, note that bias current on the other channel may vary.
Erase current Equipment: * VTVM * Oscilloscope * Resistor (1Ω)	1. Connect 1Ω resistor between ground side terminal of erase head and ground lead wire removed (See fig. 18). 2. Connect VTVM to both ends of 1Ω resistor.  **Fig. 17** 3. Place UNIT into record mode and, measure voltage across the 1Ω resistor. 4. Determine erase current with the following formula: $\text{Erase current (A)} = \frac{\text{Voltage across 1}\Omega\text{ resistor (V)}}{1\,(\Omega)}$ **Standard Value: More than 70mA**	* Record mode  **Fig. 18**

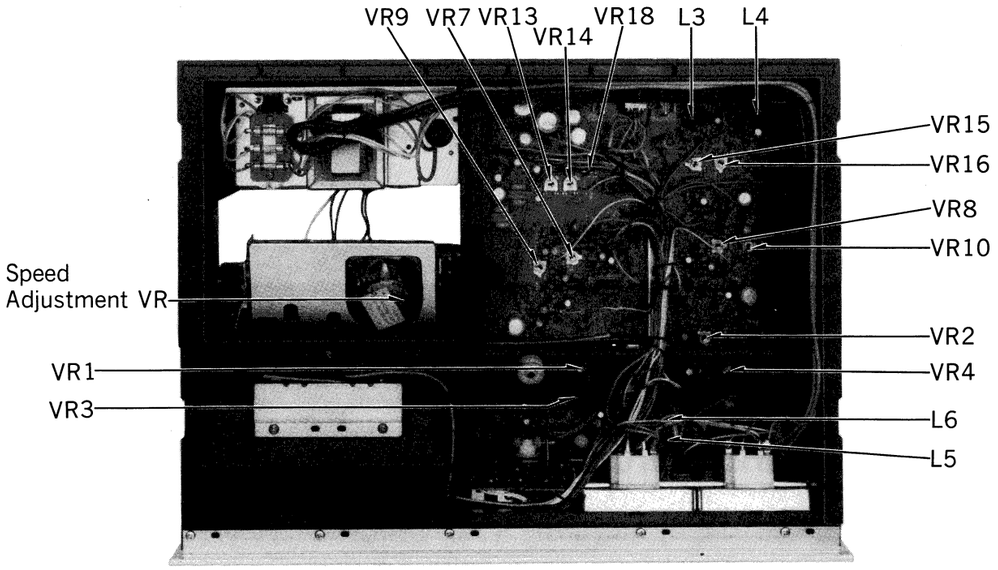
ITEM	MEASUREMENT & ADJUSTMENT	REMARKS
Overall gain Equipment: * AF oscillator * VTVM * ATT * Oscilloscope * Test tape (reference blank tape) C-RA for Normal	1. Test equipment connection is shown in fig. 19.   **Fig. 19** 2. Place UNIT into record mode, and equalizer selector to 120μS, bias selector to LOW (for normal tape). 3. Supply 1kHz signal (−24dB) from AF oscillator, through ATT, to LINE IN. 4. Adjust ATT until monitor level at LINE OUT becomes 0.42V (−7dB). 5. Using test tape (C-RA), make recording. 6. Playback recorded tape, and make sure the value at LINE OUT on VTVM becomes 0.42V. 7. If measured value is not 0.42V, adjust VR15 (L-CH), VR16 (R-CH) (See fig. 28 on page 14). 8. Repeat from step (2).	* Record/playback mode * LINE IN level control ···MAX * Input selector···LINE IN * Standard input level: MIC ····· −72±3dB LINE IN −24±3dB DIN ····· −36±3dB
Level meter Equipment: * VTVM * Oscilloscope * AF oscillator * ATT	**When there is no signal** 1. Turn off the power supply to the set. 2. Check whether the indication needles of the level meters are in the position shown in fig. 20.  **Fig. 20** 3. If they deviate to the position shown above, adjust the zero adjuster. 4. Turn on the power supply to the set.	* Record mode

ITEM	MEASUREMENT & ADJUSTMENT	REMARKS
	When standard recording level is supplied. Test equipment connection are shown in fig. 21.  **Fig. 21** 5. Set the peak level check switch to the "IN" position. 6. Supply a 1 kHz signal from the AF oscillator, through the ATT, to the LINE IN Jack. 7. Adjust the ATT so that the monitor level at LINE OUT becomes 0.42 V. 8. Adjust VR13 (L-CH) and VR14 (R-CH) so that the VU meters indicate 0 VU. (See fig. 22).  **Fig. 22** Balance of left and right level meters 9. Set the peak level check switch to the "OUT" position. 10. Then adjust VR18 for L-CH so that left and right VU meters show the same indication.	* Input selector···LINE IN
Overall distortion Equipment: * Distortion meter * AF oscillator * ATT * Oscilloscope * Test tape (reference blank tape) ···C-RA C-RA for Normal C-RF for CrO_2	1. Test equipment connection is shown in fig. 23.  **Fig. 23** 2. Supply 1 kHz signal to LINE IN and adjust ATT so that output level at LINE OUT indicates 0.42 V (−7 dB). 3. Make recording. 4. Playback and measure distortion factor of output signal. 5. When the distortion factor does not satisfy the standard, check the bias current. When the bias current is lower than standard, distortion will increase. Care should be exercised in the adjustment because the bias current also has an influence on the overall frequency response. Refer to "The overall frequency response" and "The bias current adjustment". **Standard Value: Less than 2.3% (Normal)** **Less than 3.3% (CrO_2)**	* LINE IN level control ···MAX * Input selector···LINE IN

ITEM	MEASUREMENT & ADJUSTMENT	REMARKS
Overall frequency response Equipment: * VTVM * AF oscillator * ATT * Test tape (reference blank tape) C-RA for Normal C-RF for CrO_2	**Note:** Before measuring and adjusting, make sure of the playback frequency response (For the method of measurement, please refer to the playback frequency response). 1. Test equipment connection is shown in fig. 19. 2. Load reference blank test tape and place UNIT into record mode. 3. Supply 1 kHz signal from AF oscillator through ATT to LINE IN. 4. Adjust ATT so that input level is −20 dB below standard recording level (standard recording level = 0 VU). 5. At this time, LINE OUT level indicates 0.042 V. 6. Record each frequency 50 Hz, 100 Hz, 200 Hz, 700 Hz, 1 kHz, 1.5 kHz, 2 kHz, 4 kHz and 11 kHz (12 kHz for CrO_2) at the same level. 7. Playback and express in dB the difference between playback output level of each frequency based on playback output level of 1 kHz. 8. Make sure that the measured value is within the range specified in the overall frequency response chart. **Overall frequency response chart (Normal)**	* Record/playback mode * Record level control ···MAX * Use test tape C-RA * Input selector···LINE IN
	 **Fig. 24**	
	9. Set the equalizer selector to 70 μS and bias selector to HIGH (for CrO_2 tape). 10. Measure as same as manner above. 11. Make sure that the measured value is within the range specified in the overall frequency response chart for CrO_2 tape below. **Overall frequency response chart (CrO_2)**	* Use test tape C-RF
	 **Fig. 25**	
	Adjustment 1-Using bias current	
	 **Fig. 26**	

ITEM	MEASUREMENT & ADJUSTMENT	REMARKS
Overall frequency response (As a standard for adjustment)	1. When the frequency response between the middle- and high-frequency range becomes higher than the standard value, as shown by the solid line in figure 26, increase the bias current by turning L5 (L-CH), L6 (R-CH). 2. When it becomes lower, as shown by dotted line, reduce the bias current by turning L5 (L-CH), L6 (R-CH). **Note:** 1. For adjustment when the bias current is lower than the standard value 0.17 mA, use the procedure indicated in adjustment 2, because reducing the bias current beyond this point may worsen the distortion factor. 2. For the method of bias current measurement, refer to "Bias Current Adjustment" on page 9. **Adjustment 2-Using the peaking coil for recording equalization**  **Fig. 27** 1. When the frequency response is flat in the middle-frequency range and makes a sharp rise or drop in the high-frequency range, as shown in fig. 27, adjust by turning the peaking coil L3 (L-CH), L4 (R-CH) for normal tape recording equalization.	
Overall S/N ratio Equipment: * VTVM * AF oscillator * ATT * Oscilloscope * Test tape (reference blank tape) ···C-RA	1. Test equipment connection is shown in fig. 19. 2. Supply 1 kHz signal to LINE IN and adjust ATT so that output level at LINE OUT indicates 0.42 V (−7 dB). 3. Make recording. 4. Make another recording without supplying signal (disconnect input plug to LINE IN). 5. Rewind to recorded part and playback. 6. Measure output signal level and no signal level (noise), and determine the ratio in decibels (dB). 7. The value is difference between "Playback S/N and overall S/N", but for decibel calculation refer to "Playback S/N measurement" on page 8. **Standard Value: Greater than 40 dB (without NAB filter)**	* Record/playback mode * LINE IN level control ···MAX * Erase the tape with a bulk tape eraser. * Input selector···LINE IN
Dolby NR circuit Equipment: * VTVM * AF oscillator * ATT * Oscilloscope	1. Place UNIT into record mode, set the Dolby NR switch to OUT position and supply to LINE IN to obtain −34.5 dB at TP3 (L-CH), TP4 (R-CH) (frequency 5 kHz). 2. Confirm that the value at IN position is 8 dB greater than the value at OUT position of Dolby NR switch. 3. When it is not in condition above, adjust as follows. 4. Set VR7 (L-CH), VR8 (R-CH) to maximum. 5. Set the Dolby NR switch to IN position. 6. At this time adjust VR9 (L-CH), VR10 (R-CH) so that the reading of VTVM become 10 dB greater than the value in step (1) above. 7. Adjusting VR7 (L-CH), VR8 (R-CH), make the reading of VTVM become 2 dB smaller than the value obtainted through the adjustment in step (6) above.	* Record mode * LINE IN level control ···MAX * Input selector···LINE IN

ADJUSTMENT PARTS LOCATION



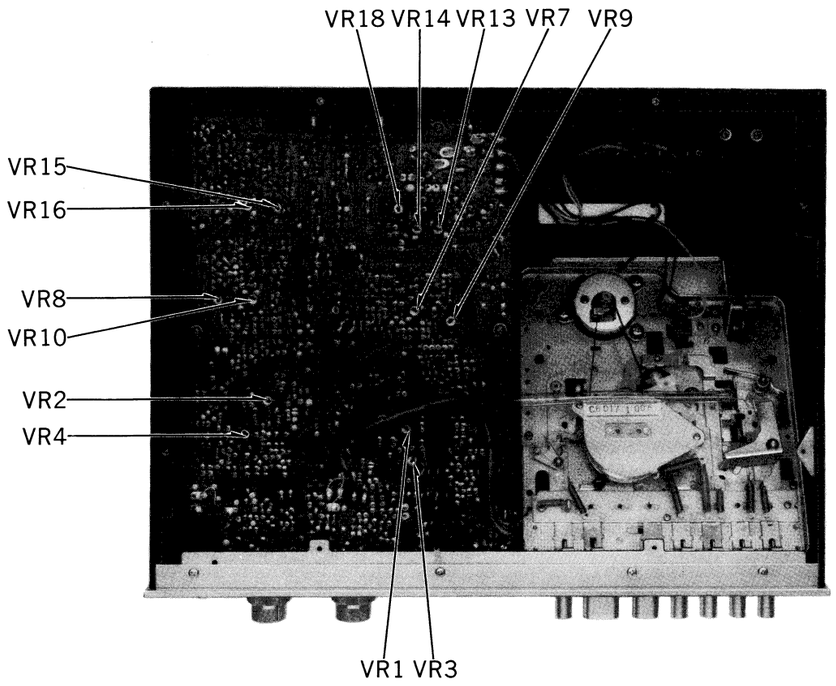
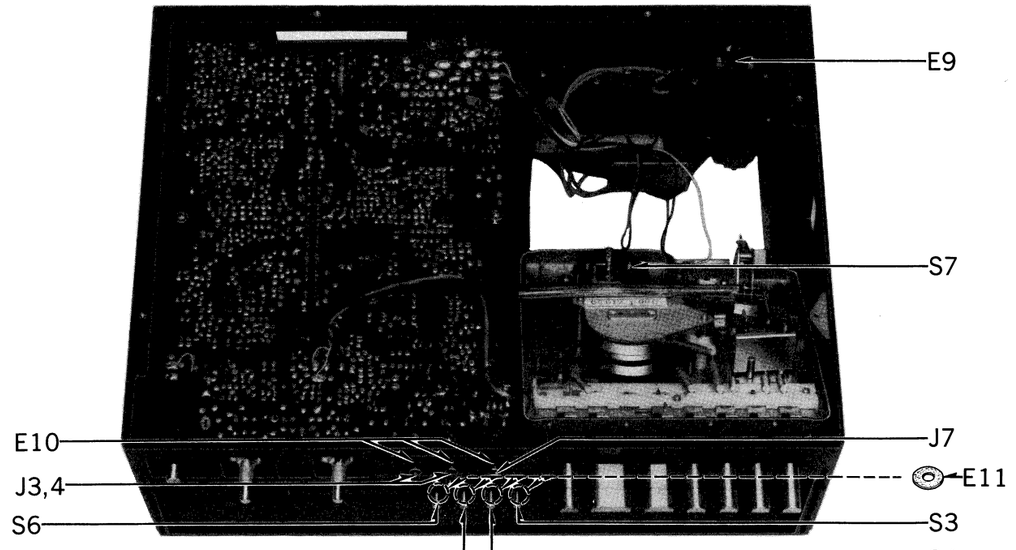
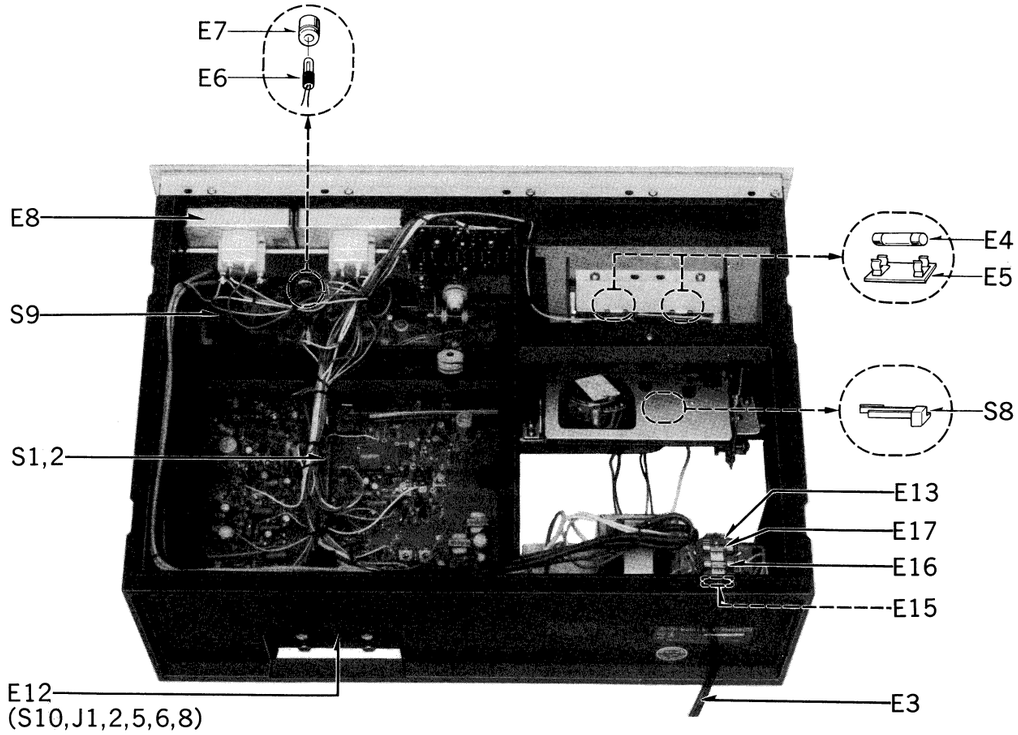


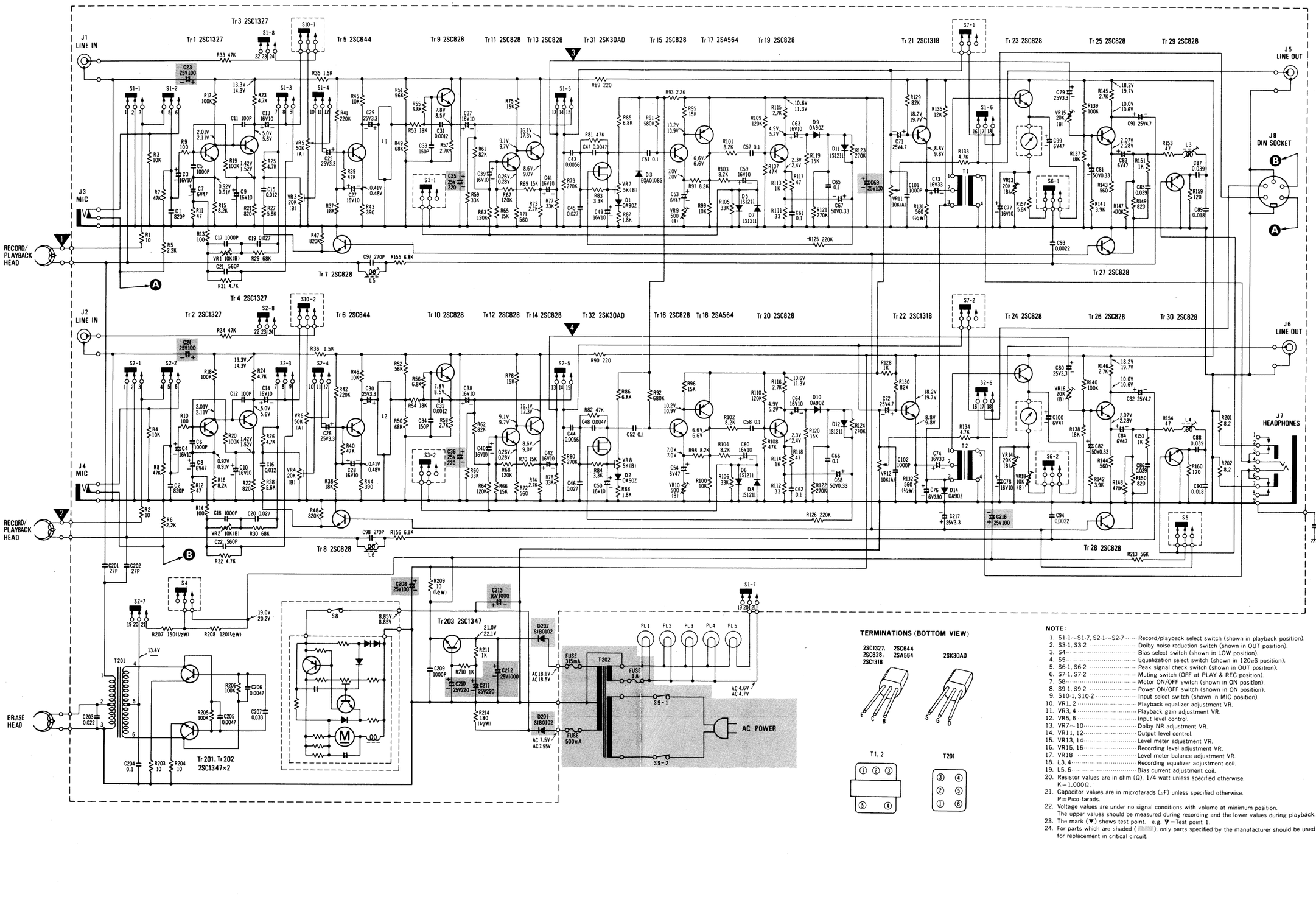
Fig. 28

ELECTRICAL PARTS LOCATION





SCHEMATIC DIAGRAM MODEL RS-630USD



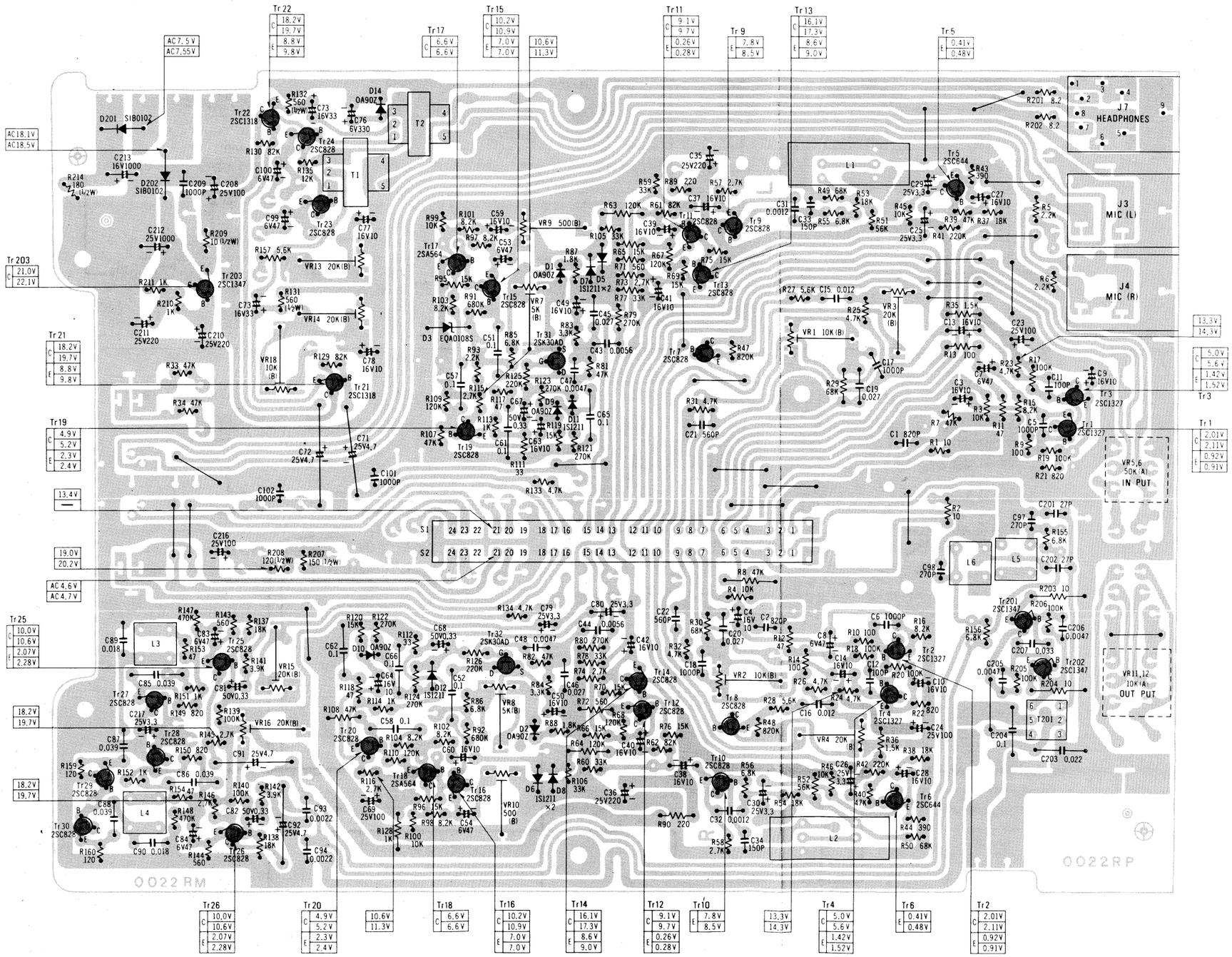
TERMINATIONS (BOTTOM VIEW)

NOTE:

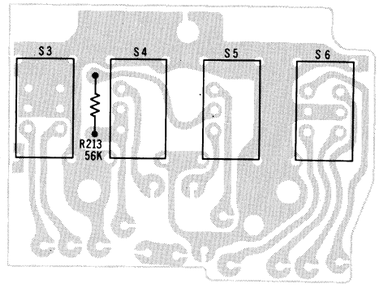
1. S1-1~S1-7, S2-1~S2-7 ..... Record/playback select switch (shown in playback position).
2. S3-1, S3-2 ..... Dolby noise reduction switch (shown in OUT position).
3. S4 ..... Bias select switch (shown in LOW position).
4. S5 ..... Equalization select switch (shown in 120μS position).
5. S6-1, S6-2 ..... Peak signal check switch (shown in OUT position).
6. S7-1, S7-2 ..... Muting switch (OFF at PLAY & REC position).
7. S8 ..... Motor ON/OFF switch (shown in ON position).
8. S9-1, S9-2 ..... Power ON/OFF switch (shown in ON position).
9. S10-1, S10-2 ..... Input select switch (shown in MIC position).
10. VR1, 2 ..... Playback equalizer adjustment VR.
11. VR3, 4 ..... Playback gain adjustment VR.
12. VR5, 6 ..... Input level control.
13. VR7~10 ..... Dolby NR adjustment VR.
14. VR11, 12 ..... Output level control.
15. VR13, 14 ..... Level meter adjustment VR.
16. VR15, 16 ..... Recording level adjustment VR.
17. VR18 ..... Level meter balance adjustment VR.
18. L3, 4 ..... Recording equalizer adjustment coil.
19. L5, 6 ..... Bias current adjustment coil.
20. Resistor values are in ohm (Ω), 1/4 watt unless specified otherwise. K=1,000Ω.
21. Capacitor values are in microfarads (μF) unless specified otherwise. P=Pico-farads.
22. Voltage values are under no signal conditions with volume at minimum position. The upper values should be measured during recording and the lower values during playback.
23. The mark (▼) shows test point. e.g. ▼=Test point 1.
24. For parts which are shaded (▨▨▨), only parts specified by the manufacturer should be used for replacement in critical circuit.

CIRCUIT BOARD

MAIN CIRCUIT BOARD

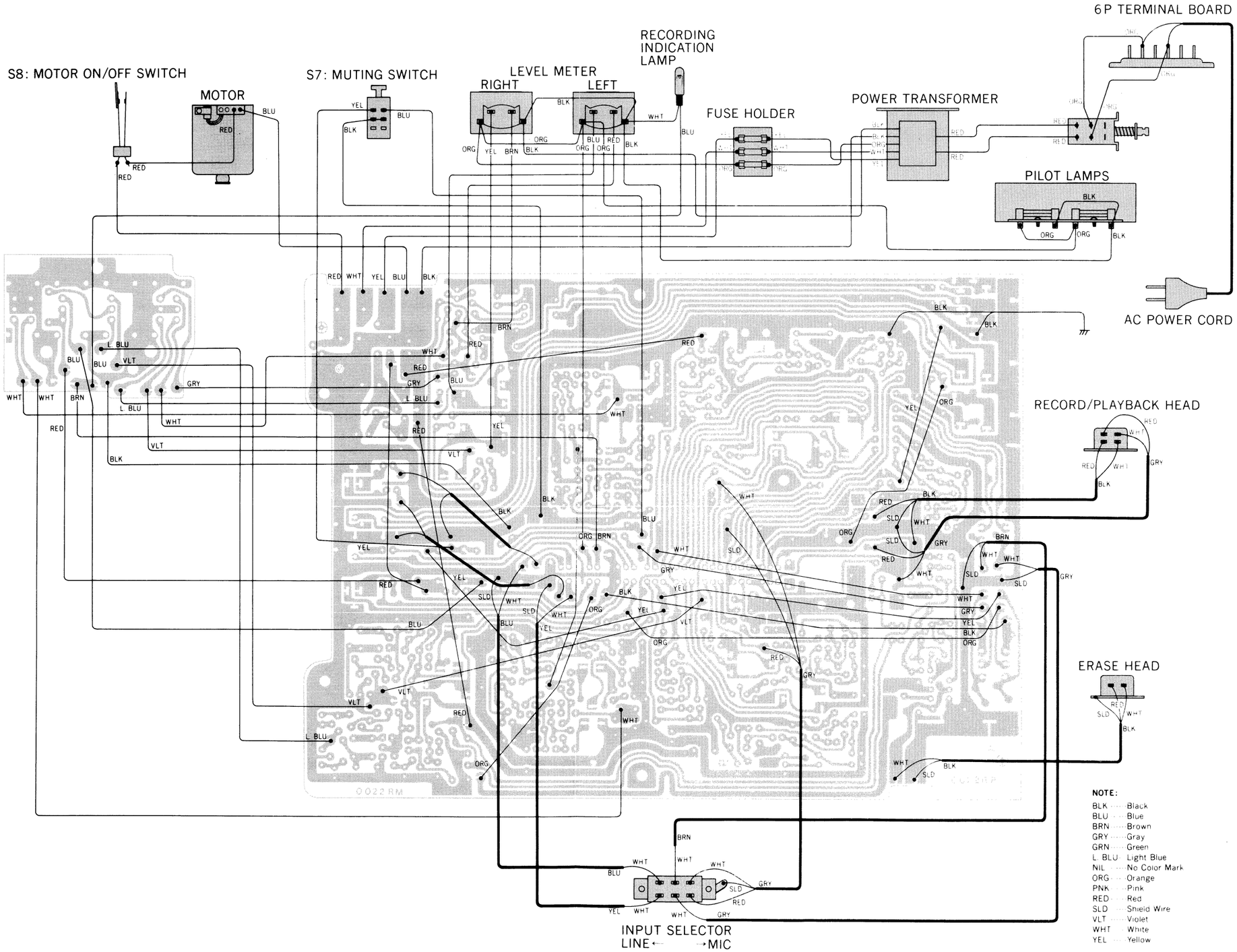


SWITCH CIRCUIT BOARD



NOTE:
The circuit shown in red on the conductor is B circuit.
Values indicated in ▭ are DC voltage between the chassis and electrical parts.
The upper values should be measured during recording and the lower values during playback.

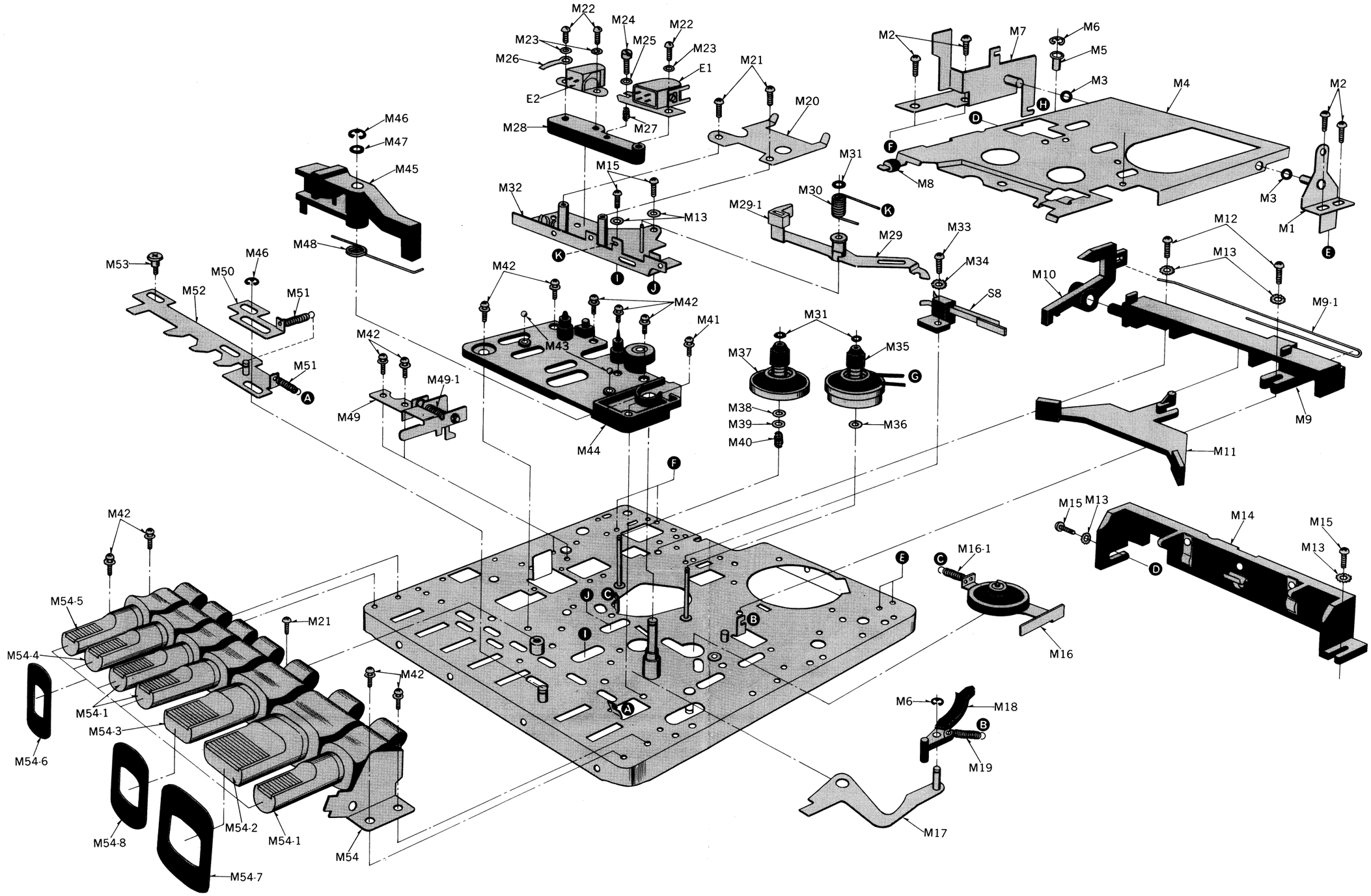
WIRING CONNECTION DIAGRAM MODEL RS-630USD

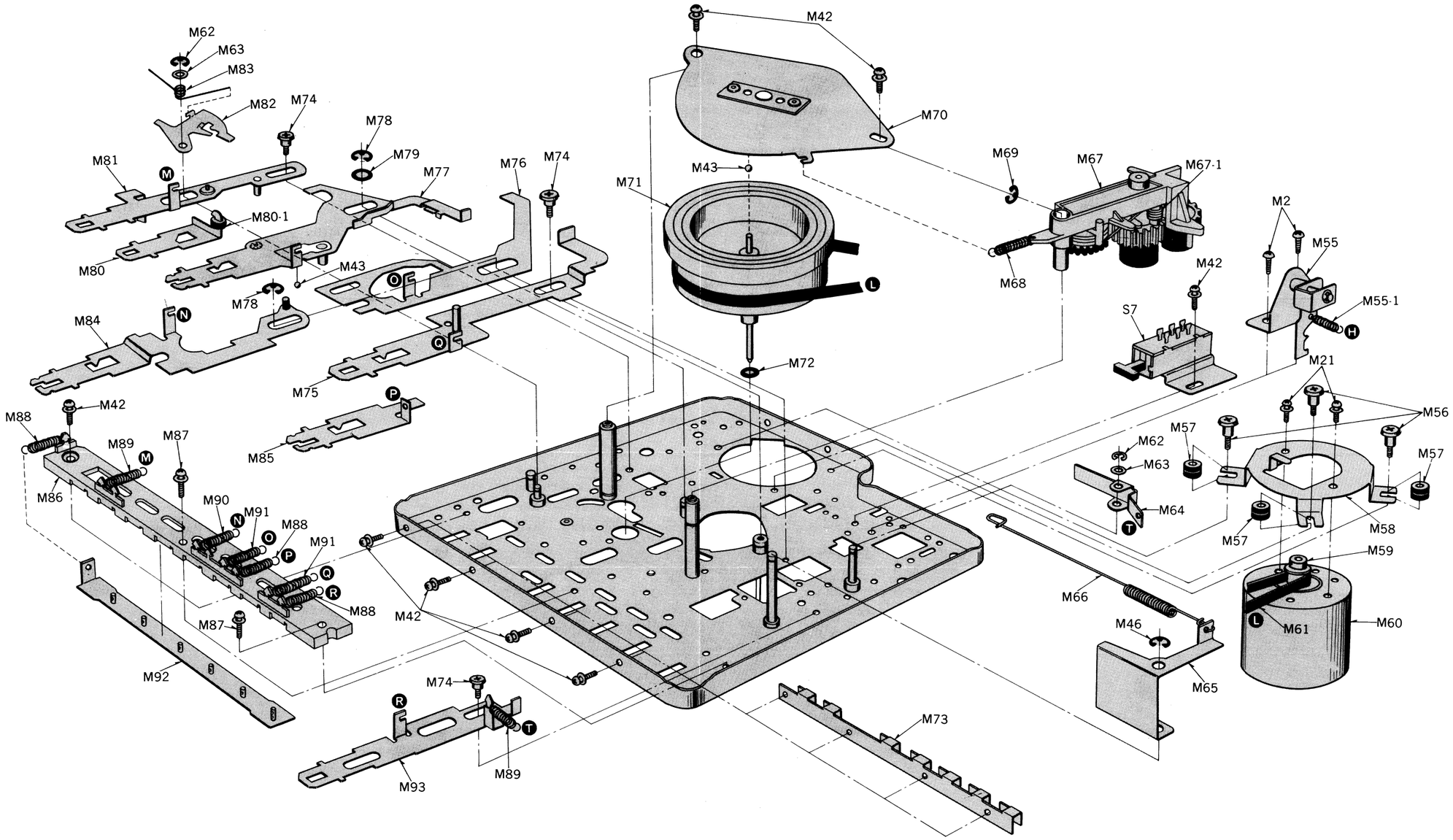


NOTE:

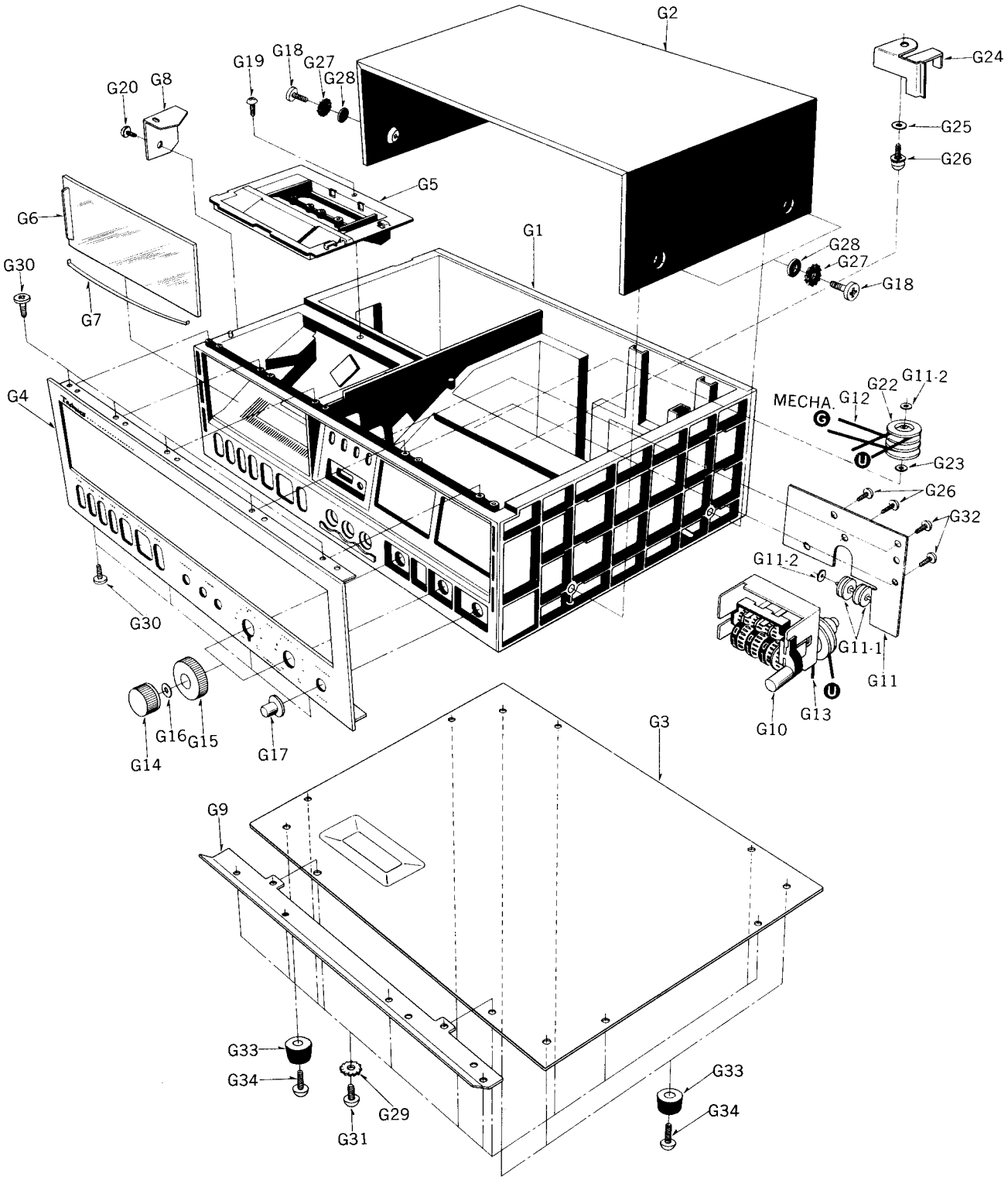
BLK	Black
BLU	Blue
BRN	Brown
GRY	Gray
GRN	Green
L BLU	Light Blue
NIL	No Color Mark
ORG	Orange
PNK	Pink
RED	Red
SLD	Shield Wire
VLT	Violet
WHT	White
YEL	Yellow

EXPLODED VIEWS




M62
M63
M83
M82
M74
M78
M79
M77
M81
M80-1
M80
M43
M78
M84
M76
M74
M75
M42
M88
M89
M87
M86
M90
M91
M88
M91
M88
M87
M92
M85
M42
M43
M71
M70
M69
M67
M67-1
M68
M72
M74
M93
M89
M73
M2
M55
M42
S7
M55-1
M21
M56
M57
M62
M63
M64
M57
M58
M57
M59
M66
M46
M61
M60
M65

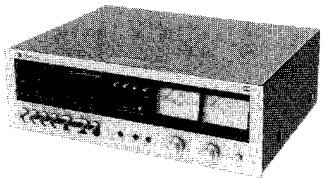
CABINET PARTS



REPLACEMENT PARTS LIST

MODEL RS-630USD

National Panasonic



RS-630USD

NOTE:

1. Be sure to make your orders of replacement parts according to this list.
2. "Ⓝ" in "Remarks" column indicates new parts.
3. For parts which are shaded ( ), only parts specified by the manufacturer should be used for replacement in critical circuit.

NOTA:

1. Habrá que asegurarse que los pedidos de piezas de repuesto se hagan según esta lista.
2. "Ⓝ" marcado en la columna "Remarks", quiere decir que las piezas son nuevas.
3. Para las partes de la lista que están sombreadas ( ), deben ser usadas para hacer el reemplazo en los circuitos críticos solamente las partes que están especificadas por el productor.

NOTE:

1. Bien s'assutet de se conformer à la liste suivante pour les commandes de pièces de rechange.
2. "Ⓝ", dans la colonne "Remarks", indique les pièces nouvelles.
3. Concernant les pièces dans les parties hachurées ( ), doivent être remplacées dans les circuits critiques uniquement par des pièces spécifiées par le fabricant.

HIENWEIS:

1. Bestellen Sie Ihre Ersatzteile genau nach dieser Liste.
2. "Ⓝ" in der "Remarks" Spalte bedeutet "neue Teile".
3. Für diejenigen Positionen in der Ersatzteil-Liste, die auf schraffiertem Untergrund ( ) gedruckt sind, dürfen nur vom Hersteller zugelassenene Fabrikate als Ersatzteile in den kritischen Schaltkreisen verwendet werden.

按：

1. 關於代用零件之訂購，務請依照此表而行之爲荷。
2. 「備考」(Remarks)一欄中之 "Ⓝ" 形符號標記表示該零件爲新出品。
3. 印有灰色( )的標號表示，祇有那些由製造公司所指定及證明的零件，才能用來代換。

Ref. No.	Part No.	Part Name & Description	Pcs/ Set	Remarks
		MECHANICAL PARTS		
M1	QXA0292	Cassette Base Plate Holding Angle	1	RS-671USD
M2	XTN3+8B	Tapping Screw ⊕3×8	6	COMMON
M3	QBW2019	Washer	2	Ⓝ
M4	QXK1713	Cassette Base Plate Assembly	1	Ⓝ
M5	QDP1595	Roller	1	RS-671USD
M6	XUC25FT	Stop Ring 2.5φ	2	COMMON
M7	QXA0465	Cassette Base Plate Holding Angle	1	Ⓝ
M8	QBG1132	Cushion Rubber	1	RS-671USD
M9	QXT0004	Brake Holder	1	Ⓝ
M9-1	QBN1486	Brake Spring	1	Ⓝ
M10	QBJ1975B	Erase Safety Lever-B	1	RS-610USD
M11	QBJ1941A	Brake	1	RS-260USD
M12	XSN26+8	Screw ⊕2.6×8	2	COMMON
M13	XWC26B	Lock Washer	4	〃
M14	QXZ0044	Cassette Retainer Assembly	1	Ⓝ
M15	XSN26+6	Screw ⊕2.6×6	2	COMMON
M16	QXLM008	Idler Lever Assembly	1	RS-263AUSD
M16-1	QBT1558M	Idler Spring	1	〃
M17	QXL0621	Auto Stop Driving Lever Assembly	1	RS-610USD
M18	QBJ1656	Auto Stop Driving Pawl	1	〃
M19	QBT1489M	Auto Stop Spring	1	〃
M20	QMF1814	Cassette Holder	1	Ⓝ
M21	XSN26+3	Screw ⊕2.6×3	3	COMMON
M22	XSN2+12	Screw ⊕2×12	3	〃
M23	XWA2B	Spring Washer	3	〃
M24	QHQ1199A	Screw for Head Adjustment	1	RS-269USD
M25	XWE2	Flat Washer 2φ	1	COMMON
M26	QTD1163	Cord Clumper	1	Ⓝ
M27	QBC1103A	Head Spring	1	RS-610USD
M28	QBJ2087A	Head Spacer	1	〃
M29	QXL0482	Auto Stop Detecting Lever Assembly	1	〃
M29-1	QBJ1538A	Auto Stop Detecting Piece	1	RQ-320SD
M30	QBN1390	Auto Stop Detecting Lever Spring	1	RS-610USD

Ref. No.	Part No.	Part Name & Description	Pcs/ Set	Remarks
M31	QWQ1124	Snap Washer	3	RQ-443SD
M32	QXK1717	Head Base Plate Assembly	1	Ⓝ
M33	XSN2+5	Screw ⊕2×5	1	COMMON
M34	XWC2B	Lock Washer 2φ	1	〃
M35	QXD0050	Takeup Reel Table Assembly	1	Ⓝ
M36	QBJ3220	Washer	1	RQ-309ASD
M37	QXD0034	Supply Reel Table Assembly	1	Ⓝ
M38	QBW2013	Washer	1	RS-263AUSD
M39	QBW2012	〃	1	RS-671USD
M40	QBC1272	Back Tension Spring	1	〃
M41	XYN26+C10	Screw with Washer ⊕2.6×10	3	COMMON
M42	XYN26+C6	Screw with Washer ⊕2.6×6	19	〃
M43	QDK1012	Steel Ball 2.5φ	4	RQ-443SD
M44	QXK1716	Upper Base Plate Assembly	1	Ⓝ
M45	QXLM010	Pressure Roller Assembly	1	RS-610USD
M46	XUC3FT	Stop Ring 3φ	3	COMMON
M47	QBW2018	Washer	1	RS-671USD
M48	QBN1389	Pressure Roller Spring	1	RS-610USD
M49	QXL0991	Up Lever Assembly	1	Ⓝ
M49-1	QBN1485	Up Lever Spring	1	Ⓝ
M50	QMR1411	Operation Lever-C	1	RS-610USD
M51	QBT1558M	Idler Spring	1	〃
M52	QXR0179	Operation Rod Assembly	1	Ⓝ
M53	QHQ1169	Step Screw	1	RS-620USD
M54	QXB0379	Push Button Assembly	1	Ⓝ
M54-1	QXB0381	Push Button (REW, FF, PAUSE)	3	Ⓝ
M54-2	QXB0382	Push Button (STOP)	1	Ⓝ
M54-3	QXB0383	Push Button (PLAY)	1	Ⓝ
M54-4	QXB0384	Push Button (RECORD)	1	Ⓝ
M54-5	QXB0385	Push Button (EJECT)	1	Ⓝ
M54-6	QBG1541	Push Button Cover	5	Ⓝ
M54-7	QBG1543	〃	1	Ⓝ
M54-8	QBG1542	〃	1	Ⓝ
M55	QXL0990	Click Lever Assembly	1	Ⓝ
M55-1	QBT1817	Click Lever Spring	1	Ⓝ

RS-630USD

Ref. No.	Part No.	Part Name & Description	Pcs/ Set	Remarks
M56	QMS1833	Step Screw	3	RS-610USD
M57	QBG1055A	Motor Rubber Cushion	3	〃
M58	QMA1952A	Motor Angle	1	RS-260USD
M59	QXP0494	Motor Pulley Assembly	1	RS-263AUSD
M59-1	XSN2+3	Screw ⊕2×3	1	COMMON
M60	QDM0980XPAB	Motor	1	RS-263AUSD
M61	QDB0141	Capstan Belt	1	〃
M62	XUC2FT	Stop Ring 2φ	2	COMMON
M63	QBK7121	Fiber Washer	2	RS-610USD
M64	QML2712	Eject Operation Lever	1	RS-620USD
M65	QML2950	Record/Playback Lever	1	Ⓝ
M66	QBT1818	Record/Playback Spring	1	Ⓝ
M67	QXG1014E	Fast Wind Lever Assembly	1	RQ-309ASD
M67-1	QBN1447A	Gear Lever Spring	1	RS-263AUSD
M68	QBT1485M	Fast Forward Lever Spring	1	RS-610USD
M69	XUC4FT	Stop Ring 4φ	1	COMMON
M70	QXH0095B	Flywheel Retainer	1	RS-610USD
M71	QXF0115	Flywheel Assembly	1	Ⓝ
M72	QBJ3221	Washer	1	RQ-309ASD
M73	QMA2373	Push Button Holder	1	Ⓝ
M74	QHQ1168	Step Screw	2	RS-610USD
M75	QXL0828	Record Lever Assembly	1	〃
M76	QMR1307A	Fast Forward Lever Assembly	1	RS-260USD
M77	QXRM0002A	Playback Lever Assembly	1	RS-610USD
M78	XUC5FT	Stop Ring 5φ	2	COMMON
M79	QBK7130A	Fiber Washer	1	RS-640USD
M80	QXR0241	Stop Rod Assembly	1	RS-620USD
M80-1	QBG1497A	Brake Rubber	1	RS-260USD
M81	QXL0826	Pause Lever Assembly	1	RS-610USD
M82	QML2379B	Lock Plate	1	RS-260USD
M83	QBN1271	Lock Spring	1	〃
M84	QXR0002B	Fast Forward Rod Assembly	1	〃
M85	QML1953A	Rewind Lever	1	〃
M86	QGG0050	Lever Guide	1	RS-610USD
M87	XYN26+C10	Screw ⊕2.6×10	2	COMMON

Ref. No.	Part No.	Part Name & Description	Pcs/ Set	Remarks
M88	QBT1580M	Stop Lever Spring	3	RS-610USD
M89	QBT1604M	Eject Lever-C Spring	2	〃
M90	QBT1536DMA	Playback Lever Spring	1	〃
M91	QBT1486M	Record Lever Spring	2	〃
M92	QXH0194	Push Button Lock Plate	1	〃
M93	QMR1446	Eject Rod	1	Ⓝ
		RESISTORS		
R1, 2	ERD25TJ100	Carbon Resistor 10Ω 1/4W	2	
R3, 4	ERD25TJ103	〃 10KΩ 1/4W	2	
R5, 6	ERD25TJ222	〃 2.2KΩ 1/4W	2	
R7, 8	ERD25TJ473	〃 47KΩ 1/4W	2	
R9, 10	ERD25TJ101	〃 100Ω 1/4W	2	
R11, 12	ERD25TJ470	〃 47Ω 1/4W	2	
R13, 14	ERD25TJ101	〃 100Ω 1/4W	2	
R15, 16	ERD25TJ822	〃 8.2KΩ 1/4W	2	
R17, 18, 19, 20	ERD25TJ104	〃 100KΩ 1/4W	4	
R21, 22	ERD25TJ821	〃 820Ω 1/4W	2	
R23, 24, 25, 26	ERD25TJ472	〃 4.7KΩ 1/4W	4	
R27, 28	ERD25TJ562	〃 5.6KΩ 1/4W	2	
R29, 30	ERD25TJ683	〃 68KΩ 1/4W	2	
R31, 32	ERD25TJ472	〃 4.7KΩ 1/4W	2	
R33, 34	ERD25TJ473	〃 47KΩ 1/4W	2	
R35, 36	ERD25TJ152	〃 1.5KΩ 1/4W	2	
R37, 38	ERD25TJ183	〃 18KΩ 1/4W	2	
R39, 40	ERD25TJ473	〃 47KΩ 1/4W	2	
R41, 42	ERD25TJ224	〃 220KΩ 1/4W	2	
R43, 44	ERD25TJ391	〃 390Ω 1/4W	2	
R45, 46	ERD25TJ103	〃 10KΩ 1/4W	2	
R47, 48	ERD25TJ824	〃 820KΩ 1/4W	2	
R49, 50	ERD25TJ683	〃 68KΩ 1/4W	2	
R51, 52	ERD25TJ563	〃 56KΩ 1/4W	2	
R53, 54	ERD25TJ183	〃 18KΩ 1/4W	2	
R55, 56	ERD25TJ682	〃 6.8KΩ 1/4W	2	
R57, 58	ERD25TJ272	〃 2.7KΩ 1/4W	2	

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Ref. No.	Part No.	Part Name & Description	Pcs/ Set	Remarks
R59, 60	ERD25TJ333	Carbon Resistor 33KΩ 1/4W	2	
R61, 62	ERD25TJ823	〃 82KΩ 1/4W	2	
R63, 64	ERD25TJ124	〃 120KΩ 1/4W	2	
R65, 66	ERD25TJ153	〃 15KΩ 1/4W	2	
R67, 68	ERD25TJ124	〃 120KΩ 1/4W	2	
R69, 70	ERD25TJ153	〃 15KΩ 1/4W	2	
R71, 72	ERD25TJ561	〃 560Ω 1/4W	2	
R73, 74	ERD25TJ272	〃 2.7KΩ 1/4W	2	
R75, 76	ERD25TJ153	〃 15KΩ 1/4W	2	
R77, 78	ERD25TJ333	〃 33KΩ 1/4W	2	
R79, 80	ERD25TJ274	〃 270KΩ 1/4W	2	
R81, 82	ERD25TJ473	〃 47KΩ 1/4W	2	
R83, 84	ERD25TJ332	〃 3.3KΩ 1/4W	2	
R85, 86	ERD25TJ682	〃 6.8KΩ 1/4W	2	
R87, 88	ERD25TJ182	〃 1.8KΩ 1/4W	2	
R89, 90	ERD25TJ221	〃 220Ω 1/4W	2	
R91, 92	ERD25TJ684	〃 680KΩ 1/4W	2	
R93	ERD25TJ222	〃 2.2KΩ 1/4W	1	
R95, 96	ERD25TJ153	〃 15KΩ 1/4W	2	
R97, 98	ERD25TJ822	〃 8.2KΩ 1/4W	2	
R99, 100	ERD25TJ103	〃 10KΩ 1/4W	2	
R101, 102, 103, 104				
	ERD25TJ822	〃 8.2KΩ 1/4W	4	
R105, 106	ERD25TJ333	〃 33KΩ 1/4W	2	
R107, 108	ERD25TJ473	〃 47KΩ 1/4W	2	
R109, 110	ERD25TJ124	〃 120KΩ 1/4W	2	
R111, 112	ERD25TJ330	〃 33Ω 1/4W	2	
R113, 114	ERD25TJ102	〃 1KΩ 1/4W	2	
R115, 116	ERD25TJ272	〃 2.7KΩ 1/4W	2	
R117, 118	ERD25TJ470	〃 47Ω 1/4W	2	
R119, 120	ERD25TJ153	〃 15KΩ 1/4W	2	
R121, 122, 123, 124				
	ERD25TJ274	〃 270KΩ 1/4W	4	
R125, 126	ERD25TJ224	〃 220KΩ 1/4W	2	
R128	ERD25TJ102	〃 1KΩ 1/4W	1	

Ref. No.	Part No.	Part Name & Description	Pcs/ Set	Remarks
R129, 130	ERD25TJ823	Carbon Resistor 82KΩ 1/4W	2	
R131, 132	ERD50TJ561	Solid Resistor 560Ω 1/2W	2	
R133, 134	ERD25TJ472	Carbon Resistor 4.7KΩ 1/4W	2	
R135	ERD25TJ123	〃 12KΩ 1/4W	1	
R137, 138	ERD25TJ183	〃 18KΩ 1/4W	2	
R139, 140	ERD25TJ104	〃 100KΩ 1/4W	2	
R141, 142	ERD25TJ392	〃 3.9KΩ 1/4W	2	
R143, 144	ERD25TJ561	〃 560Ω 1/4W	2	
R145, 146	ERD25TJ272	〃 2.7KΩ 1/4W	2	
R147, 148	ERD25TJ474	〃 470KΩ 1/4W	2	
R149, 150	ERD25TJ821	〃 820Ω 1/4W	2	
R151, 152	ERD25TJ102	〃 1KΩ 1/4W	2	
R153, 154	ERD25TJ470	〃 47Ω 1/4W	2	
R155, 156	ERD25TJ682	〃 6.8KΩ 1/4W	2	
R157	ERD25TJ562	〃 5.6KΩ 1/4W	1	
R159, 160	ERD25TJ121	〃 120Ω 1/4W	2	
R201, 202	ERD25TJ8R2	〃 8.2Ω 1/4W	2	
R203, 204	ERD25TJ100	〃 10Ω 1/4W	2	
R205, 206	ERD25TJ104	〃 100KΩ 1/4W	2	
R207	ERD50TJ151	Solid Resistor 150Ω 1/2W	1	
R208	ERD50TJ121	〃 120Ω 1/2W	1	
R209	ERD50TJ100	〃 10Ω 1/2W	1	
R210, 211	ERD25TJ102	Carbon Resistor 1KΩ 1/4W	2	
R213	ERD25TJ563	〃 56KΩ 1/4W	1	
R214	ERD50TJ181	Solid Resistor 180Ω 1/2W	1	
		VARIABLE RESISTORS		
VR1, 2	EVLS3AA00B14	Semi-fixed Variable Resistor 10KΩ (B)	2	RS-610USD
VR3, 4	EVLS3AA00B24	〃 20KΩ (B)	2	〃
VR5, 6	EWKN5AR20A54	Variable Resistor 50KΩ (A)	2	RS-671USD
VR7, 8	EVLS3AA00B53	Semi-fixed Variable Resistor 5KΩ (B)	2	〃
VR9, 10	EVLS3AA00B52	〃 500Ω (B)	2	〃
VR11, 12	EWKN5AR20A14	Variable Resistor 10KΩ (A)	2	Ⓝ
VR13, 14, 15, 16	EVLS3AA00B24	Semi-fixed Variable Resistor 20KΩ (B)	4	RS-610USD
VR18	EVLS3AA00B14	〃 10KΩ (B)	1	〃

RS-630USD

Ref. No.	Part No.	Part Name & Description	Pcs/ Set	Remarks
		CAPACITORS		
C1, 2	ECKD1H821KB	Ceramic Capacitor 820pF	2	
C3, 4	ECEA16Z10	Electrolytic Capacitor 10μF	2	
C5, 6	ECKD1H102KB	Ceramic Capacitor 1000pF	2	
C7, 8	ECEA16V47	Electrolytic Capacitor 47μF	2	
C9, 10	ECEA16V10	〃 10μF	2	
C11, 12	ECCD1H101K	Ceramic Capacitor 100pF	2	
C13, 14	ECEA16Z10	Electrolytic Capacitor 10μF	2	
C15, 16	ECQM05123KZ	Mylar Capacitor 0.012μF	2	
C17, 18	ECKD1H102KB	Ceramic Capacitor 1000pF	2	
C19, 20	ECQM05273KZ	Mylar Capacitor 0.027μF	2	
C21, 22	ECKD1H561KB	Ceramic Capacitor 560pF	2	
C23, 24	ECEA25V100	Electrolytic Capacitor 100μF	2	
C25, 26	ECEA50Z3R3	〃 3.3μF	2	
C27, 28	ECEA16V10	〃 10μF	2	
C29, 30	ECEA50V3R3	〃 3.3μF	2	
C31, 32	ECQM05122KZ	Mylar Capacitor 0.0012μF	2	
C33, 34	ECKD1H151KB	Ceramic Capacitor 150pF	2	
C35, 36	ECEA25V220	Electrolytic Capacitor 220μF	2	
C37, 38, 39, 40, 41, 42				
	ECEA16V10	〃 10μF	6	
C43, 44	ECQM05562JZ	Mylar Capacitor 0.0056μF	2	
C45, 46	ECQM05273JZ	〃 0.027μF	2	
C47, 48	ECQM05472JZ	〃 0.0047μF	2	
C49, 50	ECEA16V10	Electrolytic Capacitor 10μF	2	
C51, 52	ECQM05104KZ	Mylar Capacitor 0.1μF	2	
C53, 54	ECEA16V47	Electrolytic Capacitor 47μF	2	
C57, 58	ECQM05104KZ	Mylar Capacitor 0.1μF	2	
C59, 60	ECEA16V10	Electrolytic Capacitor 10μF	2	
C61, 62	ECQM05104KZ	Mylar Capacitor 0.1μF	2	
C63, 64	ECEA16V10	Electrolytic Capacitor 10μF	2	
C65, 66	ECQM05104KZ	Mylar Capacitor 0.1μF	2	
C67, 68	ECEA50ZR33	Electrolytic Capacitor 0.33μF	2	
C69	ECEA25V100	〃 100μF	1	

Ref. No.	Part No.	Part Name & Description	Pcs/ Set	Remarks
C71, 72	ECEB35V4R7	Electrolytic Capacitor 4.7μF	2	
C73, 74	ECEA16V33	〃 33μF	2	
C76	ECEA6V330	〃 330μF	1	
C77, 78	ECEA16V10	〃 10μF	2	
C79, 80	ECEA50V3R3	〃 3.3μF	2	
C81, 82	ECEA50ZR33	〃 0.33μF	2	
C83, 84	ECEA16V47	〃 47μF	2	
C85, 86, 87, 88	ECQM05393KZ	Mylar Capacitor 0.039μF	4	
C89, 90	ECQM05183KZ	〃 0.018μF	2	
C91, 92	ECEB35V4R7	Electrolytic Capacitor 4.7μF	2	
C93, 94	ECQM05222KZ	Mylar Capacitor 0.0022μF	2	
C97, 98	ECQS1271KZ	Styrol Capacitor 270pF	2	
C99, 100	ECEA16V47	Electrolytic Capacitor 47μF	2	
C101, 102	ECKD1H102KB	Ceramic Capacitor 1000pF	2	
C201, 202	ECCD1H270K	〃 27pF	2	
C203	ECQM2223KZ	〃 0.022μF	1	
C204	ECQM05104KZ	〃 0.1μF	1	
C205, 206	ECQM05472KZ	〃 0.0047μF	2	
C207	ECQM05333KZ	〃 0.033μF	1	
C208	ECEA25V100	Electrolytic Capacitor 100μF	1	
C209	ECKD1H102KB	Ceramic Capacitor 1000pF	1	
C210, 211	ECEA25V220	Electrolytic Capacitor 220μF	2	
C212	ECEA25V1000	〃 1000μF	1	
C213	ECEA16V1000	〃 1000μF	1	
C214	ECKD1H102KB	Ceramic Capacitor 1000pF	1	
C216	ECEA26V100	Electrolytic Capacitor 100μF	1	
C217	ECEA50V3R3	〃 3.3μF	1	
		TRANSISTORS		
Tr1, 2, 3, 4	2SC1327	Transistor	1	RS-610USD
Tr5, 6	2SC644	〃	2	〃
Tr7, 8, 9, 10, 11, 12, 13, 14, 15, 16				
	2SC828	〃	10	〃
Tr17, 18	2SA564	〃	2	〃
Tr19, 20	2SC828	〃	2	〃

RS-630USD

Ref. No.	Part No.	Part Name & Description	Pcs/ Set	Remarks
Tr21, 22	2SC1318	Transistor	2	RS-676USD
Tr23, 24, 25, 26, 27, 28, 29, 30				
	2SC828	〃	8	〃
Tr31, 32	2SK30AD	FET	2	〃
Tr201, 202, 203				
	2SC1347	Transistor	3	RS-610USD
		DIODES & RECTIFIERS		
D1, 2	OA90Z	Diode	2	COMMON
D3	EQA0108S	〃	1	RS-263AUSD
D5, 6, 7, 8	1S1211	〃	4	RS-610USD
D9, 10	OA90Z	〃	2	COMMON
D11, 12	1S1211	〃	2	RS-610USD
D14	OA90Z	〃	1	COMMON
D201, 202	SIB0102	Rectifier	2	
		TRANSFORMERS		
T1, 2	QLT2D10A	Output Transformer	2	RS-671USD
T201	QLB0158	Oscillator Transformer	1	〃
T202	QLPD7ELEA	Power Transformer	1	Ⓝ
		COILS		
L1, 2	QLM9Z002W	MPX Filter Coil	2	Ⓝ
L3, 4	QLQX0331W	Peaking Coil	2	RS-671USD
L5, 6	QLQX1032W	Bias Trap Coil	2	RS-610USD
		JACKS		
J1, 2, 5, 6, 8	Refer to E12	(Interlocked with Jack Board)	(1)	
J3, 4	QJA0237	Microphone Jack	2	RS-676USD
J7	QJA0238	Headphone Jack	1	〃
		SWITCHES		
S1, 2	QSS1120	Slide Switch (Record/Playback Selector)	2	Ⓝ
S3, 4, 5, 6	QST2210H	Lever Switch (Dolby, Bias, EQ, Peak)	4	Ⓝ
S7	QSS2209T	Slide Switch (Muting)	1	RS-620USD

Ref. No.	Part No.	Part Name & Description	Pcs/ Set	Remarks
S8	QSB0169M1	Leaf Switch (Motor ON/OFF)	1	RS-610USD
S9	ESB7016	Push Switch (Power ON/OFF)	1	〃
S10	Refer to E12	Input Selector	(1)	
		ELECTRICAL PARTS		
E1	WY445AZA	Record/Playback Head	1	RS-610USD
E2	QWY2118	Erase Head	1	〃
E3	QFC1204	AC Power Cord	1	SD Supply
E4	XAMR9S	Pilot Lamp	2	RS-671USD
E5	QTF1049A	Lamp Holder	2	Ⓝ
E6	XAMQ22P200N	Pilot Lamp	1	Ⓝ
E7	QBG1222	Lamp Cover	1	RS-485SD
E8	QSL9005LNM	Level Meter	2	Ⓝ
E9	QTD1164	Cord Clamper	1	RS-671USD
E10	QNQ1051	Jack Nut	3	〃
E11	QBH0050	Switch Mask	4	Ⓝ
E12	QEJ0354	Jack Board Assembly	1	Ⓝ
E13	QTFM1001	Fuse Holder	1	RS-263AUSD
E14	QJT6009	6P Terminal Board	1	RS-610USD
E15	XBAQ0006	Fuse (315mA)	1	〃
E16	XBAQ0003	Fuse (500mA)	1	〃
E17	XBAQ0004	Fuse (1A)	1	RS-276USD
		CABINET PARTS		
G1	QYBM0030K	Main Body Case Assembly	1	Ⓝ
G2	QGC1040	Case Cover	1	RS-671USD
G3	QGCM0004	Bottom Cover Assembly	1	Ⓝ
G4	QYPM0009	Front Panel Assembly	1	Ⓝ
G5	QYCM0014	Cassette Cover Assembly	1	Ⓝ
G6	QKFM0022H	Slide Lid	1	Ⓝ
G7	QBPM0008	Lid Spring	1	Ⓝ
G8	QMAM0061	Side Angle	1	Ⓝ
G9	QMAM0065	Bottom Case Holding Angle	1	Ⓝ
G10	QXCM0005	Tape Counter	1	Ⓝ
G11	QXAM0003	Counter Angle Assembly	1	Ⓝ

RS-630USD

Ref. No.	Part No.	Part Name & Description	Pcs/ Set	Remarks
G11-1	QBJ2088	Connection Pulley-A	2	RS-671USD
G11-2	QWQ1124	Snap Washer	1	〃
G12	QDB0124	Counter Belt-A	1	RS-610USD
G13	QDB0136	Counter Belt-B	1	Ⓝ
G14	QYT0396	Volume Knob-A Assembly	2	Ⓝ
G15	QYT0397	Volume Knob-B Assembly	2	Ⓝ
G16	QBJ3299	Washer	2	RS-671USD
G17	QXBM0017	Power Button	1	Ⓝ
G18	XSB4+E8FZS	Screw ⊕4×8	4	COMMON
G19	XTN3+10B	Tapping Screw ⊕3×10	1	〃
G20	QHTM001RS	Screw (Red)	1	Ⓝ
G21	XYB3+E6RS	Screw ⊕3×6 (Red)	8	COMMON
G22	QDP1679	Connection Pulley-B	1	Ⓝ
G23	QBJ3220	Washer	1	RS-610USD
G24	QMLM0031	Record/Playback Lever	1	Ⓝ
G25	XWG3E10	Flat Washer	1	COMMON
G26	XYN3+C6S	Screw ⊕3×6	1	〃
G27	XWC4B	Lock Washer 4φ	4	〃
G28	XWG4E10FZ	Flat Washer	4	〃
G29	XWC3B	Lock Washer 3φ	8	〃
G30	XTN3+8B	Tapping Screw ⊕3×8	9	〃
G31	XSN3+6S	Screw ⊕3×6	8	〃
G32	XTN3+8B	Tapping Screw ⊕3×8	2	〃
G33	QKA1065	Rubber Foot	4	RS-671USD
G34	XSN4+8S	Screw ⊕4×8	4	COMMON
		ACCESSORIES		
A1	RP050A	DIN Cord	1	COMMON
A2	QFT6TCJNTBFZ	Cassette Tape	1	RS-610USD
A3	QQT1078	Instruction Book	1	Ⓝ
		PACKINGS		
P1	QPNM0090	Inside Carton	1	Ⓝ
P2	QPA0185	Inner Cushion-A	1	Ⓝ
P3	QPA0186	Inner Cushion-B	1	Ⓝ

Ref. No.	Part No.	Part Name & Description	Pcs/ Set	Remarks
P4	XZB50X60A05	Dust Cover	1	RS-610USD